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| 09/702,496      | 10/31/2000  | John Border          | 81798/CEB           | 9832             |

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EXAMINER

HECKENBERG JR, DONALD H

ART UNIT

PAPER NUMBER

1722

DATE MAILED: 02/07/2003

9

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/702,496

Applicant(s)

BORDER ET AL.

Examiner

Donald Heckenberg

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on December 9, 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 and 4-13 is/are pending in the application.
- 4a) Of the above claim(s) 7-13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 4-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 December 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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1. Applicant's election of Group 1 (currently pending claims 1 and 4-6) in Paper No. 8 is acknowledged. Because Applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claims 7-10 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected method, there being no allowable generic or linking claim, with the election made without traverse.

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1 and 4-6 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The amendment filed on December 9, 2002 adds the limitation that "each one of said pair of juxtaposed mold cavities [has] a

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solid plastic material disposed at least partially therein" at lines 6-7 of claim 1. There is no recitation of a solid plastic material being disposed in the mold cavities in the originally filed disclosure. Therefore, this newly added language is new matter.

The amendment to claim 1 further recites "said first alignment member comprises a pair of spaced guide pins disposed in a pair of corresponding spaced apertures in the second mold base, the spaced apertures having a pair of spaced tapered bushings arranged therein for receiving said spaced guide pins." This newly added language is not described in the disclosure of the instant application. As described at p. 10, lines 20-22 of the specification of the instant application, and further depicted at figure 9 of the instant application, the originally filed disclosure taught a pair of guide pins -88-, and a pair of tapered bushings -86- on the same mold base, and corresponding apertures on an opposed mold base. In other words, a tapered bushing, as used in the original disclosure, was a projecting structure on the same mold base -82- as the guide pins (see figure 9), with the tapered bushing, in and of itself, was aligned with an aperture on another mold base. As noted above, the amended language of claim 1 recites that the tapered bushings receive the guide pins. This language is therefore

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contrary to the originally filed disclosure, and constitutes new matter.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1 and 4-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As noted above on in the rejection under 35 U.S.C. 112, first paragraph, the disclosure does not set forth pair of mold cavities having a solid plastic material disposed at least partially therein, as amended claim 1 now recites. Based on the disclosure of the instant application, it is unclear what this limitation is intended to mean. The specification of the application recites that the substrate, from which the mold cavities are constructed, is made from a material selected "from among copper, nickel, nickel alloy, nickel plating, brass, and silicon, with hardened nickel plating being the most preferred." (specification p. 6, lines 27-29). None of these materials are

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plastic. In light of this disclosure, the language of claim 1 referring to the solid plastic material will be interpreted for purposes examination below on its merits as referring to a plastic preform, from which the molded lens is molded from. However, appropriate clarification and correction is required.

As also noted above in the rejection under 35 U.S.C. 112, first paragraph, the tapered bushing (86) is described as a positive projecting structure (see figure 9). The newly amended language of claim 1 seems to require the bushing to be an aperture structure, as it is required to receive the guide pin. Therefore, the language used in the claim is inconsistent with the description in the specification. As such, the scope and meaning of the claim is indefinite. In light of this disclosure, the language of claim 1 referring to tapered bushing for purposes examination below on its merits will be interpreted as reciting a tapered bushing structure which projects from one of the mold bases as is shown in figure 9 of the drawings of the instant application. However, appropriate clarification and correction are required.

Claim 6 recites that the mold cavities are formed in a "polygonal substrate." This limitation lacks antecedent basis in the specification, and it is unclear what a "polygonal substrate" is. It is believed based on the disclosure, including

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in particular the reference to US Pat. No. 5,519,539 (entitled "MICROLENS ARRAY WITH MICROLENSES HAVING MODIFIED POLYGON PERIMETERS") that this limitation was intended to indicate that the shape of the mold cavities is a polygon. For the purposes of this examination on the merits in view of the prior art, the claim will be interpreted as reciting a polygonal shaped cavity. Further clarification and/or correction is required.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in Graham v. John Deere Co., 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

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8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 1 and 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cumming (US Pat. No. 5,837,156; previously of record) in view of Fujimoto et al. (US Pat. No. 6,141,991; previously of record).

Cumming teaches a molding apparatus comprising a first mold base and a second mold base (fig. 26), wherein each of the first and second mold base has a polygonal insert (165) for accommodating a pair of juxtaposed mold cavities (164), with a set of alignment features comprising a taper bushing (168)



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arranged in the insert alignably disposed in a corresponding receiving aperture (184) formed in the second insert.

Cumming fails to teach the apparatus to comprise first and second platens supporting the mold bases. Cumming also fails to teach the mold bases to comprise an alignment member comprising a pair of guide pins and corresponding spaced apertures.

Fujimoto teaches a molding apparatus wherein the apparatus comprises first and second mold bases (201a and 201b) supported on first and second platens (208 and 209) as such allow for the apparatus to be used in a pressing operation (see col. 10, lns. 35-39). Fujimoto further teach the apparatus to comprise a pair of guide pins (211) and corresponding spaced apertures (212) in order to guide and align the molds when they are opened and closed.

It would have been obvious to one of ordinary skill in the art at the time of the Applicant's invention to have modified the apparatus of Cumming as such to have provided the apparatus with a first and second platens because this would have allowed the mold base to be used in a pressing operation as suggested by Fujimoto. It also would have been obvious to one of ordinary skill in the art at the time of the Applicant's invention to have modified the apparatus of Cumming as such to have provided the mold bases with guide pins and corresponding apertures

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because this would have aided in guiding and aligning the mold bases when the mold is opened and closed as suggested by Fujimoto.

It is noted that claim 1 recites intended uses of the claimed apparatus as having a solid plastic preform material disposed in the mold cavity and for receiving a microlens mold in a fixed relationship. It is well settled that the intended use of an apparatus is not germane to the issue of patentability of the apparatus. If the prior art structure is capable of performing the claimed use, then it meets the claim limitation(s). In re Casey, 370 F.2d 576, 580 152 USPQ 235, 238 (Cust. & Pat. App. 1967); In re Otto, 312 F.2d 937, 939, 136 USPQ 458, 459 (Cust. & Pat. App. 1963). In the instant case the apparatus of Cummings would be capable of receiving a microlens mold and for using a solid plastic preform material, and therefore meets the claim limitations.

10. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cumming modified by Fujimoto as applied to claims 1 and 5-6 above, and further in view of Maus et al. (US Pat. No. 4,828,769).

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Cumming and Fujimoto teach the apparatus as described above. Cumming and Fujimoto fail to teach the apparatus to be an injection molding assemblage.

In the same field of endeavor (lens molding), Maus teaches a mold structure to be an injection molding assemblage.

It would have been obvious to one of ordinary skill in the art at the time of the Applicant's invention to have modified the apparatus of Cumming and Fujimoto as such to have made the mold an injection molding assemblage because this is suitable way to form the desired molded product as suggested by Maus.

11. Applicant's arguments filed December 9, 2002 have been fully considered but they are not persuasive.

Applicant argues that Cumming requires the use of straight alignment pins.

Note that of the language of the claims of the instant application do not require that the bushing be tapered throughout its entire length. Cumming's figures 4, 8-9, 18, 21, 26 all show bushing pins which have a tapered portion at the top of the pin. For example, in figure 4, Cumming designates the pin 60 and shows the pin to have a tapered portion at the top of the pin. Such a pin/busing anticipates the language of the claims of the instant application referring to "tapered bushings."

Applicant notes that the tapered pins of the instant invention are chosen from a material that has a slightly higher thermal expansion coefficient than the mold plates, and notes advantages achieved by constructing the pins in this manner.

The claims of the instant application do not describe the material from which the tapered bushings are constructed, or the thermal expansion properties of the material from which the bushings are constructed. Therefore, these features cannot form the basis of patentability, given that all the claimed features are rendered obvious by the combination of Cumming, Fujimoto and Maus as described above.

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will

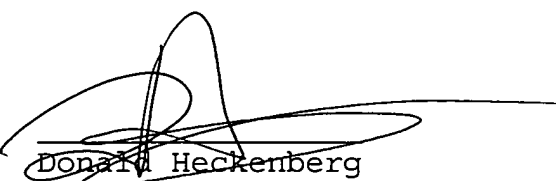
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expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Donald Heckenberg whose telephone number is (703) 308-6371. The examiner can normally be reached on Monday through Friday from 9:30 A.M. to 6:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda Walker, can be reached at (703) 308-0457. The official fax phone number for the organization where this application or proceeding is assigned is (703) 872-9310 for responses to non-final action, and 703-872-9311 for responses to final actions. The unofficial fax phone number is (703) 305-3602.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

  
Donald Heckenberg  
January 29, 2003

  
JAMES P. MACKEY  
PRIMARY EXAMINER

2/5/03